

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

,96
231FSO
cop. 2

Water Supply Outlook For Oregon



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

OREGON DEPARTMENT OF WATER RESOURCES

AS OF
MAR. 1, 1980

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: THE SNOTEL PROJECT CENTRAL COMPUTER FACILITIES IN PORTLAND, OREGON. THE TERMINAL, PRINTER, COMPUTER AND TAPE DRIVES HAVE NOT COMPLETELY REPLACED THE SNOW SAMPLING TUBES SEEN IN THE FOREGROUND.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

MARCH 1, 1980

Issued by

NORMAN A. BERG

ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

Released by

GUY W. NUTT

STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
PORTLAND, OREGON

In Cooperation with

OREGON
DEPARTMENT
OF
WATER RESOURCES

Report prepared by

TOMMY A. GEORGE, Snow Survey Supervisor
RONALD A. JONES, Asst. Snow Survey Supervisor
WILLIAM E. WOOLCOCK, Hydrologic Technician
SOIL CONSERVATION SERVICE
1220 S.W. THIRD AVENUE
PORTLAND, OREGON 97204

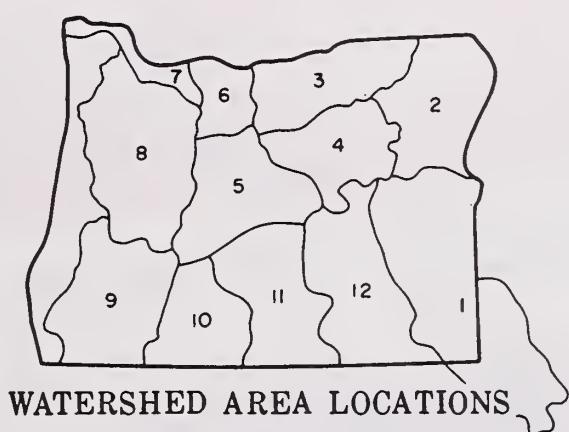
TABLE OF CONTENTS

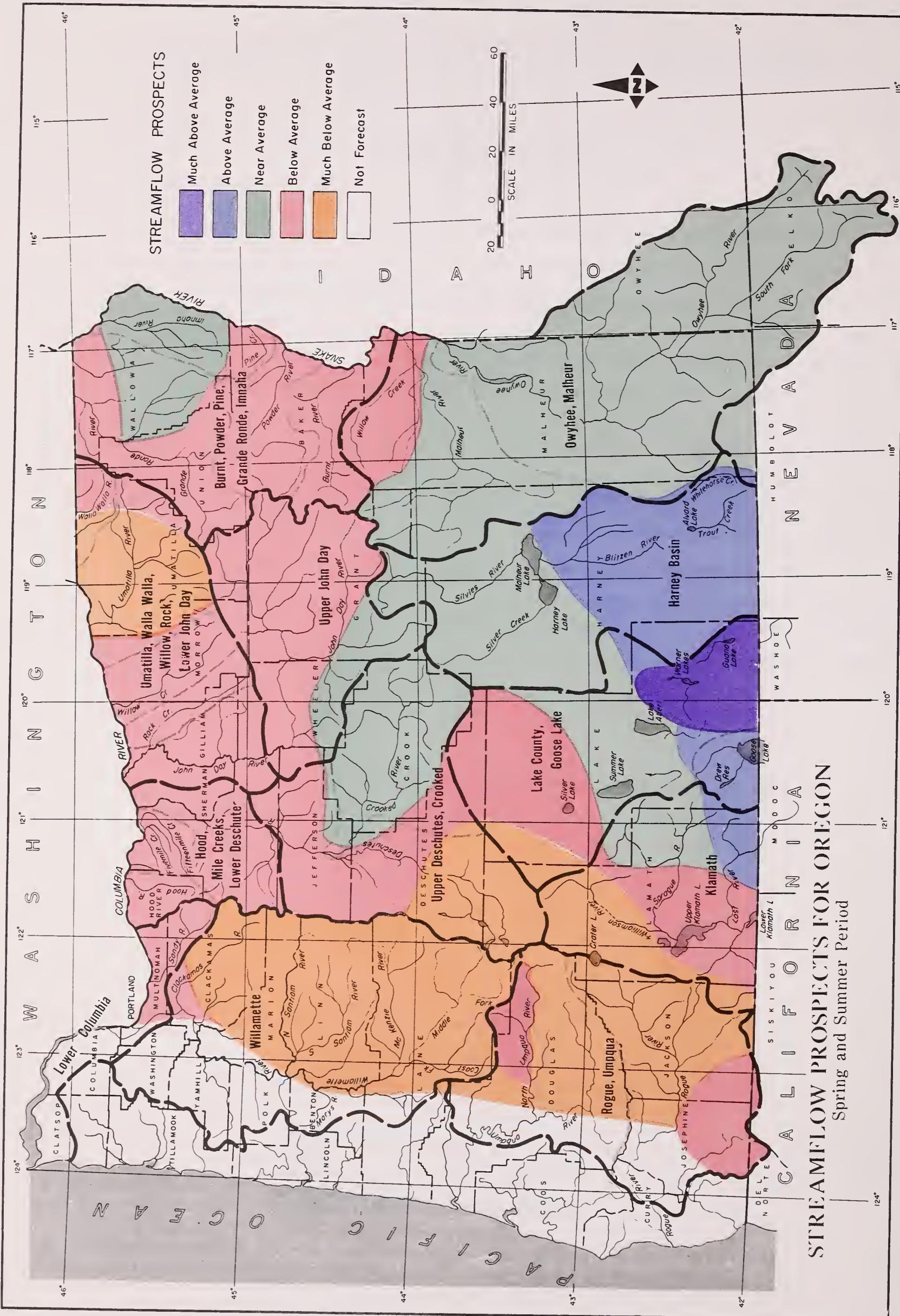
	PAGE
STREAMFLOW PROSPECTS FOR OREGON.....(MAP).....	FACING PAGE 1
WATER SUPPLY OUTLOOK FOR OREGON.....	1
DETAILED WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS	
AREA 1 Owyhee, Malheur.....	3
AREA 2 Burnt, Powder, Pine, Grande Ronde, Imnaha.....	5
AREA 3 Umatilla, Walla Walla, Willow, Rock, Lower John Day.....	7
AREA 4 Upper John Day.....	9
AREA 5 Upper Deschutes, Crooked.....	11
AREA 6 Hood, Mile Creeks, Lower Deschutes.....	13
AREA 7 Lower Columbia.....	15
AREA 8 Willamette.....	17
AREA 9 Rogue, Umpqua.....	19
AREA 10 Klamath.....	21
AREA 11 Lake County, Goose Lake.....	23
AREA 12 Harney Basin.....	25

BASIC DATA SUPPLEMENTS	I	SNOW
	II	PRECIPITATION

MAP AND INDEX OF OREGON SNOW COURSES.....(MAP)

LIST OF COOPERATORS.....INSIDE BACK COVER





WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

MARCH 1, 1980

*Adequate water supplies should be available for most Oregon water users *
this summer except in the Willamette, Rogue, Umpqua, Umatilla and Deschutes
*basins. Water users dependent upon direct diversion in these five areas *
*should have much below average supplies available. The snowpack in the *
*Cascades and the Blue Mountains near Pendleton is extremely deficient. *
*Reservoir storage is adequate except on the Deschutes and several smaller *
*reservoirs in the Rogue basin.

SNOW COVER

The mountain snowpack is much below average in the Cascades and the Blue Mountains near Pendleton. It is normal to slightly below in all other areas except in the south half of Lake and Harney counties where a much above normal snowpack has accumulated.

PRECIPITATION

Precipitation this past month was near average to above average throughout the state. Exceptions were the Rogue-Umpqua and Willamette basins and the extreme northeast corner of the state. Here precipitation was below normal.

RESERVOIR STORAGE

Reservoir storage is generally good. Twenty-five irrigation reservoirs were storing 2,209,000 acre feet on March 1. This is 102 percent of average. Storage in the major irrigation reservoirs on the Deschutes is currently below average.

STREAMFLOW

Streamflow during the winter months so far has been near average except on the west side of the Cascades. Here streamflow has been below average. Projected streamflow for the 1980 April-September period on representative Oregon streams is as follows:

-continued on next page-

STREAMFLOW (CONT.)

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST</u> <u>% of 1963-77 AVG.</u>
Owyhee net Inflow	April-Sept.	105
Malheur nr. Drewsey	April-Sept.	100
Deschutes @ Benham Falls	April-Sept.	62
Grande Ronde @ LaGrande	April-Sept.	69
Willamette Mid.Fk. nr. Oakridge	April-Sept.	66
Upper Klamath Lake net Inflow	April-Sept.	70
Rogue @ Raygold	April-Sept.	70
Silvies nr. Burns	April-Sept.	100

These forecasts assume normal amounts of rainfall between now and the end of September. Unusually warm temperatures and a lack of rainfall will reduce streamflow below the amounts forecast.

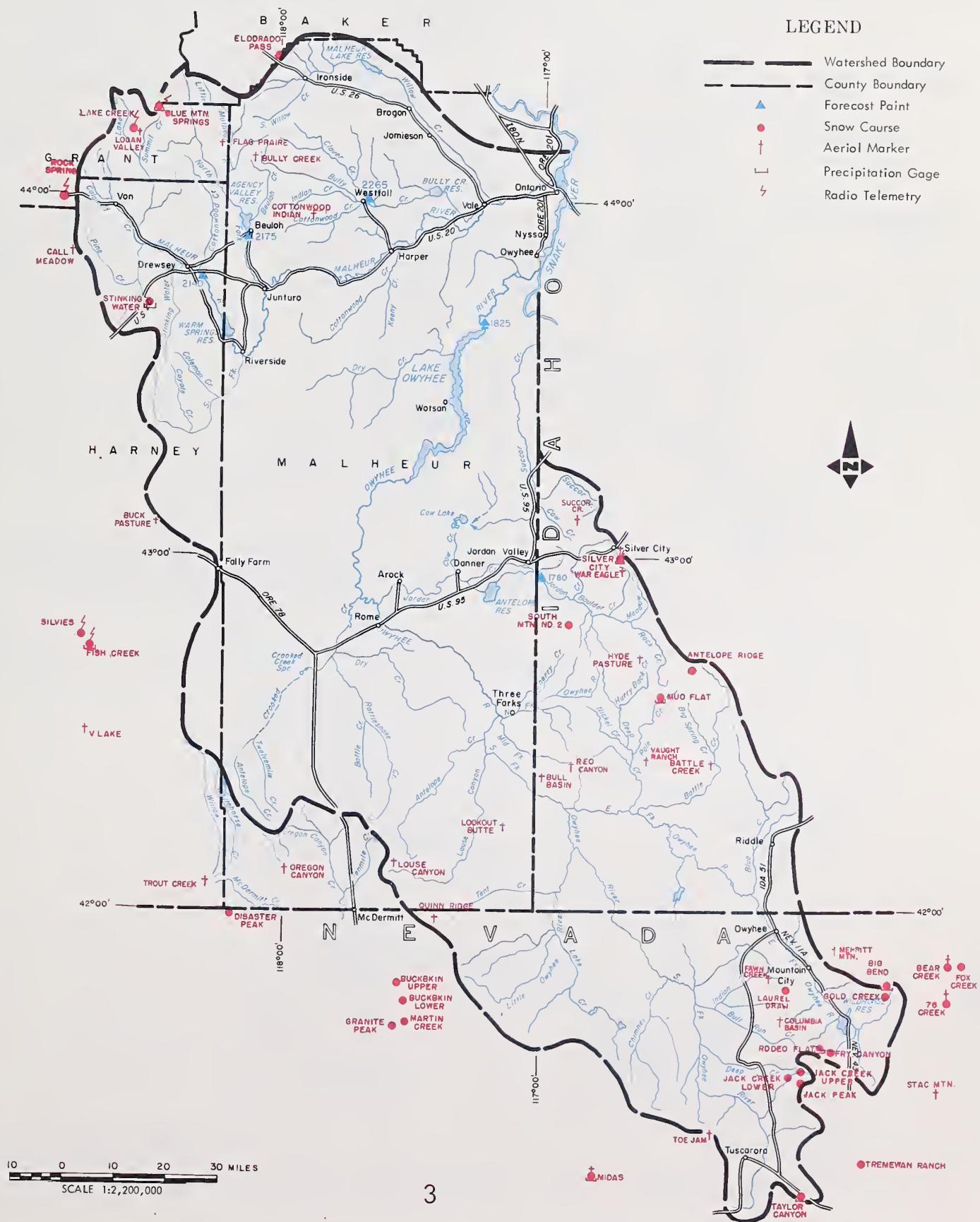
The forecasts in this bulletin are a result of coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS OREGON

GENERAL OUTLOOK

The water supply outlook for Malheur County is good. Snow cover on the Owyhee is 117% of average and near average on the Malheur. The low elevation snow is gone. Reservoir storage is above average for this time of year. Precipitation this past month was much above average and near normal for the November-February period. Streamflow volumes should be close to normal and stream levels are forecast to recede about one week earlier than normal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Bully Creek at Warmsprings	9.0	70	March-May		12.6b
Malheur near Drewsey	92	100	March-July		92
	73	100	April-Sept.		73
Malheur, North Fork at Beulah	77	104	March-July		74
	70	104	April-Sept.		67
Owyhee Reservoir net Inflow	561	110	March-July	548	510
	412	105	April-Sept.	378	392
Owyhee at Rome	593	110	March-July		539b

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	2000	May 8	May 14
	1000	May 17	May 28
	500	June 5	June 11

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Beulah Reservoir	60.0	33.5	20.0	34.2
Bully Creek	30.0	22.3	11.7	15.8
Owyhee	715.0	629.9	599.8	516.8
Warmsprings	191.0	129.8	87.6	108.2

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Bully Creek	2	--	--
Jordan Creek	3	96	123
Malheur River	5	77	102
Owyhee River	6	80	117

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

The water supply outlook for Wallowa County is good, while for Baker and Union Counties it is below average. An irrigator who gets water from a reservoir should have adequate supplies, while an irrigator who pumps directly from a stream in Baker-Union Counties is predicted to have short supplies. The snow cover on the Grande Ronde watershed is 58% of average. The snow cover in the remaining area ranges from 90 to 100% of average. Most of the reservoirs are below average for this time of year. Precipitation for the month was above average; however, for the November-February period it was below average. Predicted streamflow is below average for most of the area.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year	Average C
Anthony Creek blw. North Fork nr. North Powder	14	85	March-July		16.5
Bear near Wallowa	55	85	April-Sept.		65
Big Creek blw. Burn Creek nr. Medical Spring	9.8	85	March-July		11.5
Burnt near Hereford	38	84	March-July		45
	30	83	April-Sept.		36
Catherine near Union	49	76	April-Sept.		64
Deer Creek abv. Phillips Res. nr. Sumpter	15.1	87	March-July		17.3
Eagle Creek abv. Skull Creek	140	83	April-July		169
	154	84	April-Sept.		184
Grande Ronde at La Grande	119	70	March-July	309	194
	112	69	April-Sept.	239	161
Hurricane near Joseph	44	95	April-Sept.		46
Imnaha at Imnaha	302	99	April-Sept.		305
Lostine near Lostine	116	94	April-Sept.		123
Pine Creek nr. Oxbow	196	85	March-July		230
Powder near Sumpter	51	90	April-July		57
	52	90	April-Sept.		58
Wallowa, East Fork near Joseph	12.0	98	March-Sept.		12.2
	11.2	97	April-Sept.		11.5
Wallowa at Joseph	69	100	May-July		69
Wolf Creek Res. net Inflow	11.1	84	March-June		13.2b

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Phillips Lake	73.5	44.8	44.7	50.1
Thief Valley	17.4	17.4	17.4	17.3
Unity	25.2	15.1	13.5	15.0
Wallowa Lake	37.5	17.3	29.8	22.5
Wolf Creek	10.4	3.4	5.9	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Burnt River	4	88	95
Grande Ronde River			
Above La Grande	3	49	58
Powder River	5	77	89
Wallowa, Imnaha, Catherine Creek	6	108	100

FORECAST DATE of LOW FLOW VALUES

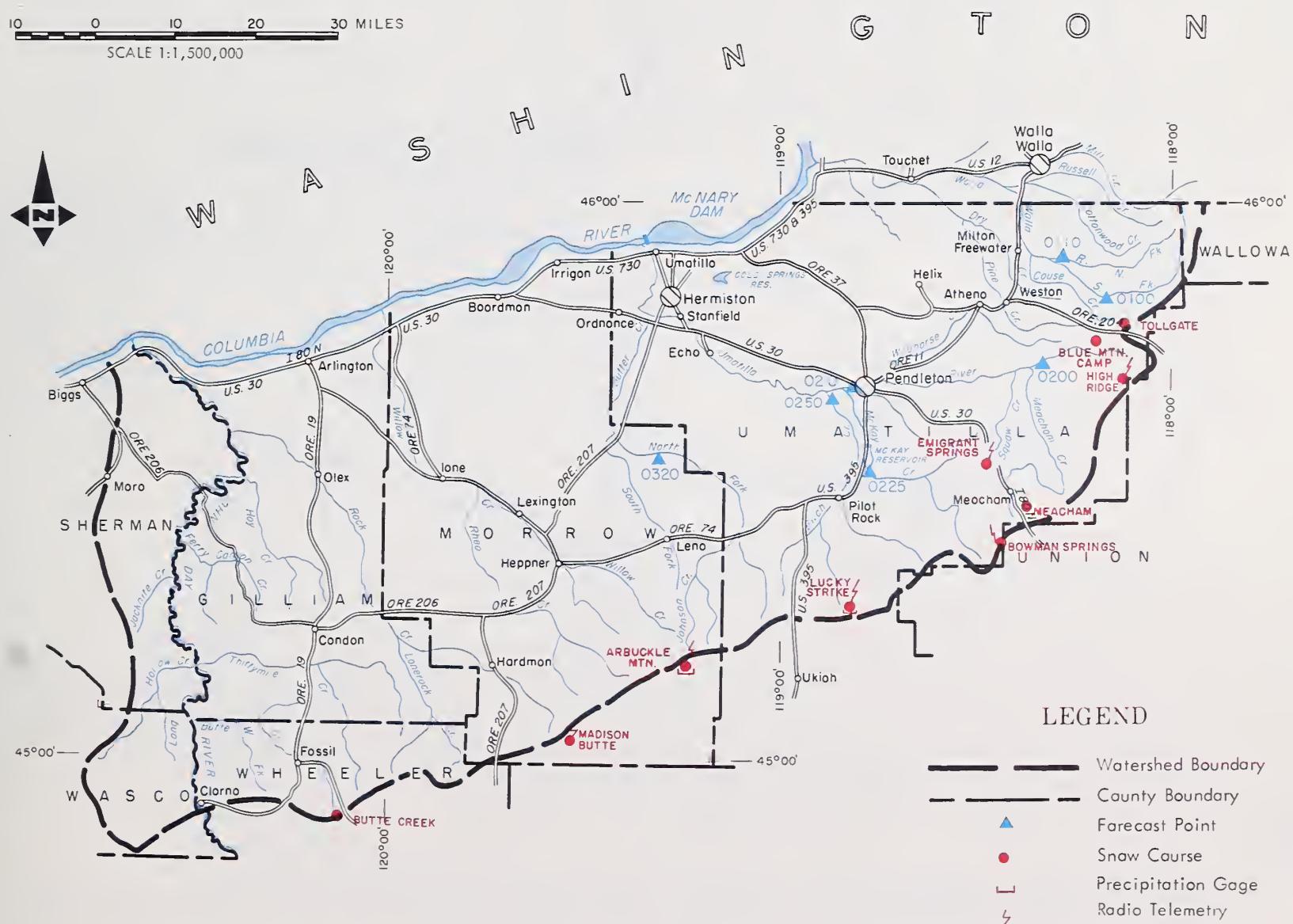
FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Catherine Creek nr. Union	39	Aug. 1	Avg. value 49
	100	July 1	July 9
	50	July 19	July 28

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

The water supply for Umatilla County is predicted to be much below average this year for users who divert directly from streams. For Gillian and Morrow Counties it will be better, but still below average. The snow pack, which ranges from 40 to 68 percent of average, is poor. Reservoir storage is 86 to 104 percent of average for this time of year. The stream levels will recede about 3 weeks early this year. Precipitation for February was slightly above average, but for the November through February period it was below average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year	Average ^c
Butter Creek nr. Pine City	9.1	85	March-July	10.7	
Couse Creek nr. Milton	3.8	68	March-July	5.6 ^b	
McKay near Pilot Rock	13.2	60	April-July	22	
	13.2	60	April-Sept.	22	
Pine Creek near Weston	3.0	68	March-July	4.4 ^b	
Rhea Creek nr. Heppner	5.0	80	March-July	6.2	
Rock Creek abv. Cayuse Canyon nr. Condon	14.3	85	March-July	16.8 ^b	
Umatilla near Gibbon	71	72	March-Sept.	99	
	56	72	April-Sept.	78	
Umatilla at Pendleton	143	70	March-Sept.	204	
	105	70	April-Sept.	150	
Walla Walla, South Fork near Milton	74	90	March-Sept.	82	
	61	88	April-Sept.	69	
Willow Creek at Heppner	5.5	81	March-July	6.8	

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	April 28	May 17
So. Fk. Walla Walla nr. Milton	200	May 24	June 9
	103	Aug-Sept.	Avg. value 105 cfs

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	33.1	24.9	40.0
McKay	73.8	42.6	47.4	41.1

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	3	26	40
Umatilla River	4	41	60
Walla Walla River	3	51	68

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

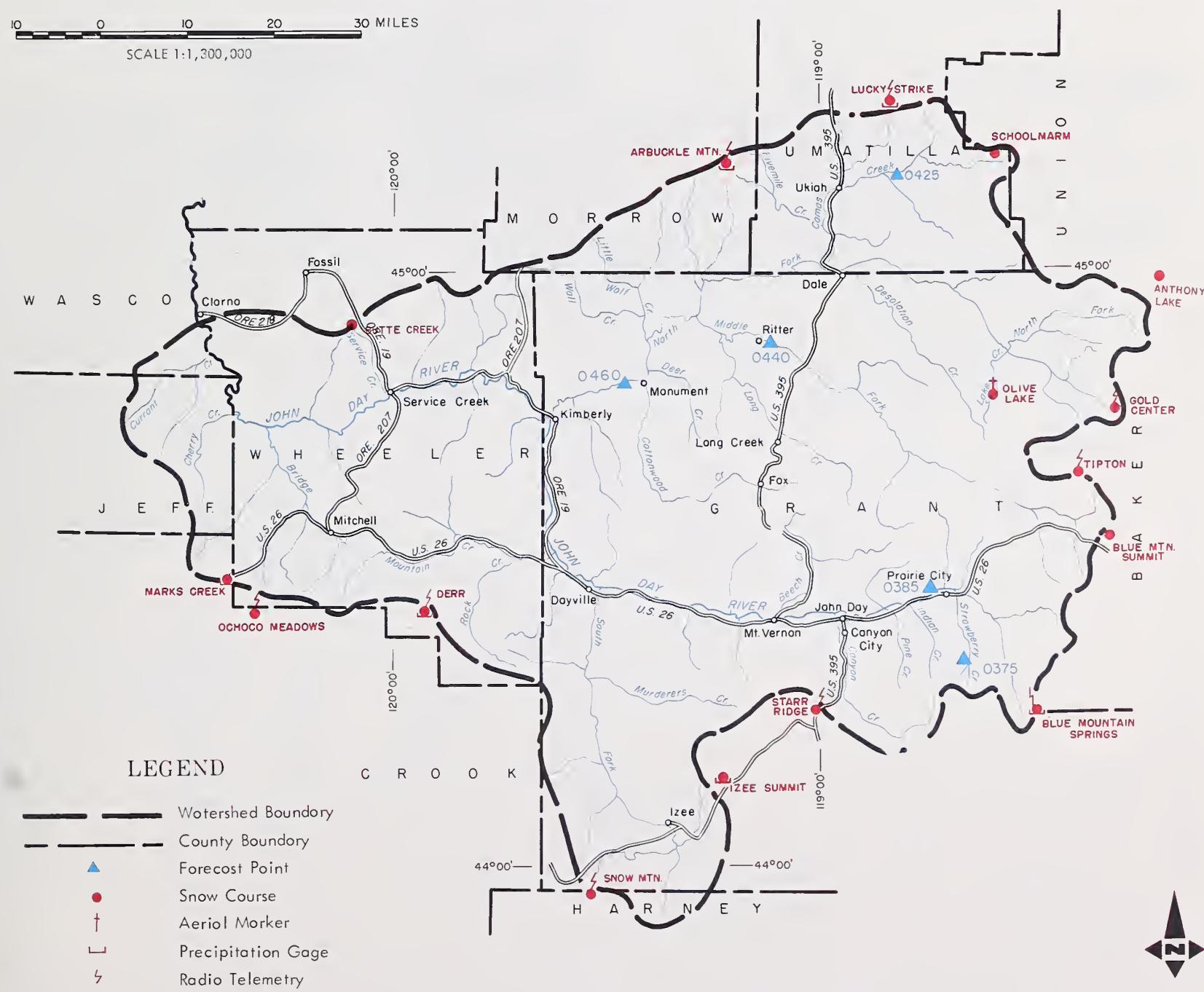
WATER SUPPLY OUTLOOK

UPPER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

The water supply for the John Day Basin will be slightly less than normal this year. The snow pack is 87 to 95 percent of average. Precipitation for February was slightly above average. The John Day at Service Creek should flow about 174 cfs on August 1 compared to a normal of 212 cfs.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Camas Creek near Ukiah	34	80	March-July	42	
	27	80	April-Sept.	34	
John Day, Middle Fork at Ritter	110	83	March-July	133	
	93	82	April-Sept.	113	
John Day, North Fork at Monument	570	89	March-July	639	
	480	89	April-Sept.	541	
Mountain Creek nr. Mitchell	3.8	95	March-July	4.0b	
Strawberry near Prairie City	6.9	94	March-July	7.3	
	7.4	96	April-Sept.	7.7	

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
John Day at Service Creek	174	Aug. 1	Avg. value 212

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
John Day, North Fork	6	70	87
John Day abv. Dayville	5	74	95

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS
OREGON

GENERAL OUTLOOK

The Deschutes basin will have below average water supplies available except on the Crooked River where supplies are expected to be near normal. The snow pack is extremely poor in the Cascades and slightly below average on the Crooked River. Reservoir storage is good at Prineville and Ochoco. Reservoirs on the Upper Deschutes are all at below March 1 average levels. Streamflows on the Deschutes are generally expected to be much below average this summer.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
Beaver Creek near Paulina	16.0	100	April-July	16.0
	16.1	100	April-Sept.	16.1
Crane Prairie Reservoir total Inflow	75	62	April-Sept.	120
Crescent at Crescent Lake	10.0	50	March-July	20
	12.0	54	April-Sept.	22
Crooked River nr. Prineville	134	100	March-July	134
	90	100	April-Sept. 1	90
Crooked R., No.Fk. blw. Lookout Cr.nr. Paulina	12.0	91	March-July	13.2b
Deschutes at Bend	135	--	Aug.-Sept.	--
Deschutes at Benham Falls	308	64	April-July	483
	450	62	April-Sept.	728
Deschutes below Snow Creek	40	58	March-Sept.	69
	38	60	April-Sept.	63
Deschutes, Little near La Pine	40	45	March-July	89
	38	45	April-Sept.	84
Ochoco Reservoir net Inflow	25	104	March-July	24
	16.0	100	April-Sept.	16
Squaw near Sisters	38	78	April-Sept.	49
Tumalo near Bend	37	82	April-Sept.	45

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	336	Peak	
	211	Oct. 31	
Crooked R. near Post	100	Peak	
Deschutes at Bend	1500	May 26	June 1
*Will not reach 1500.		May 30	July 1
Little Deschutes near La Pine	400	May 8	June 7
	200	June 5	July 8
Squaw Cr. nr. Sisters	100	Aug. 3	Aug. 16

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Crane Prairie	55.3	32.5	39.7	46.1
Crescent Lake	86.9	29.0	43.1	63.5
Ochoco	47.5	39.5	32.5	28.8
Prineville	153.0	126.0	118.5	101.1
Wickiup	200.0	154.7	173.5	173.2

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Crooked, Ochoco	4	60	87
Deschutes abv. Wickiup	2	104	73
Little Deschutes	4	69	48
Shitike Cr.	4	64	69
Tumalo & Squaw Crs.	3	93	73

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS OREGON

GENERAL OUTLOOK

Hood River and Wasco County water users should have adequate supplies this summer. The mountain snow pack is 80% of average. Winter precipitation has been near average. Summer streamflow will be slightly below average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Hood River near Hood River	217	88	April-July		247
	258	88	April-Sept.		293
Hood, West Fork near Dee	108	85	April-July		127
	127	85	April-Sept.		149
White below Tygh Valley	91	80	April-July		114
	103	80	April-Sept.		129

FORECAST DATE of LOW FLOW VALUES

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value	RESERVOIR	Usable Capacity	Usable Storage		
						This Year	Last Year	Average
Clear Branch Inflow	*34	July 15-31	**39	Clear Lake (Wasco)	11.9	1.6	0.1	4.6
* Average cfs forecast to flow for this two-week period.								
** Average cfs for period of record.								
White blw. Tygh Valley	200	June 21	July 3 Avg. value 145					
	126	Aug. 1						

SUMMARY of SNOW MEASUREMENTS

COMPARISON OF SNOW WINTER (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Hood River	5	87	81
Mile Creeks	1	63	72
White River	3	79	82

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

The flow of the Columbia at The Dalles will be below average this summer. The snowpack in the Upper Columbia basin is below normal. The water supply picture remains essentially the same as last month.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Sandy River	2	85	88

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year
Columbia at The Dalles	71,800	81	April-July	88,520
	83,900	81	April-Sept.	103,500
Sandy River near Marmot	247	75	April-July	329
	288	75	April-Sept.	384

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^d (1,000 A.F.)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 c.f.s.)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

WATER SUPPLY OUTLOOK

WILLAMETTE WATERSHEDS

OREGON

Area 8

GENERAL OUTLOOK

Most water users dependent upon direct diversion in the Willamette Valley will have below average supplies available this summer. The snowpack in the Cascades is extremely deficient and a cool wet spring is needed to keep streams up to adequate levels. The winter precipitation has been 87 percent of normal. Reservoir storage in the major flood control reservoirs is near normal for March 1 and users with access will have adequate water.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Clackamas at Estacada	467	70	April-July		667
	547	70	April-Sept.		782
Clackamas above Three Lynx	354	70	April-July		506
	422	70	April-Sept.		603
McKenzie at McKenzie Bridge	340	75	April-July		452
	470	78	April-Sept.		598
McKenzie near Vida	680	66	April-July		1,024
	831	66	April-Sept.		1,259
McKenzie, So. Fork near Rainbow	138	67	April-July		207
	154	66	April-Sept.		234
Oak Grove Fork above Power Intake	100	76	April-July		132
	128	76	April-Sept.		168
Row near Dorena	65	66	April-July		98
	70	67	April-Sept.		104
Santiam, North at Mehama	500	66	April-July		752
	568	66	April-Sept.		860
Santiam, South at Waterloo	400	73	April-July		547
	413	70	April-Sept.		590
Willamette, Coast Fork nr. London	20	74	April-July		27
Willamette, Mid.Fk.blw. N. Fk. nr. Oakridge	430	70	April-July	771	607
	520	66	April-Sept.	849	786
Willamette, No.Fk. of Mid. Fk. near Oakridge	111	59	April-July		188
	130	62	April-Sept.		209
Willamette at Salem	3,000	71	April-July		4,213
	3,288	70	April-Sept.		4,697

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Clackamas River	2	37	43
McKenzie River	3	36	30
Row River	2	15	12
Santiam River	4	34	27
Willamette, Mid. Fk.	4	61	41

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Blue River	85.6*	31.2	36.0	27.8
Cottage Grove	30.0*	8.7	8.8	8.0
Cougar	155.2*	47.5	59.8	41.2
Detroit	299.9*	103.1	135.2	97.6
Dorena	70.5*	20.4	19.8	18.7
Fall Creek	115.0*	32.9	51.0	35.1
Fern Ridge	94.2*	42.1	46.8	35.5
Foster	30.0*	6.7	3.6	5.7
Green Peter	270.0*	82.9	125.4	97.1
Hills Creek	200.0*	69.6	100.3	60.0
Lookout Point	337.2*	64.6	147.1	94.0
Timothy Lake	61.7	31.5	22.7	54.8
Henry Hagg Lake	53.0	48.5	48.3	--

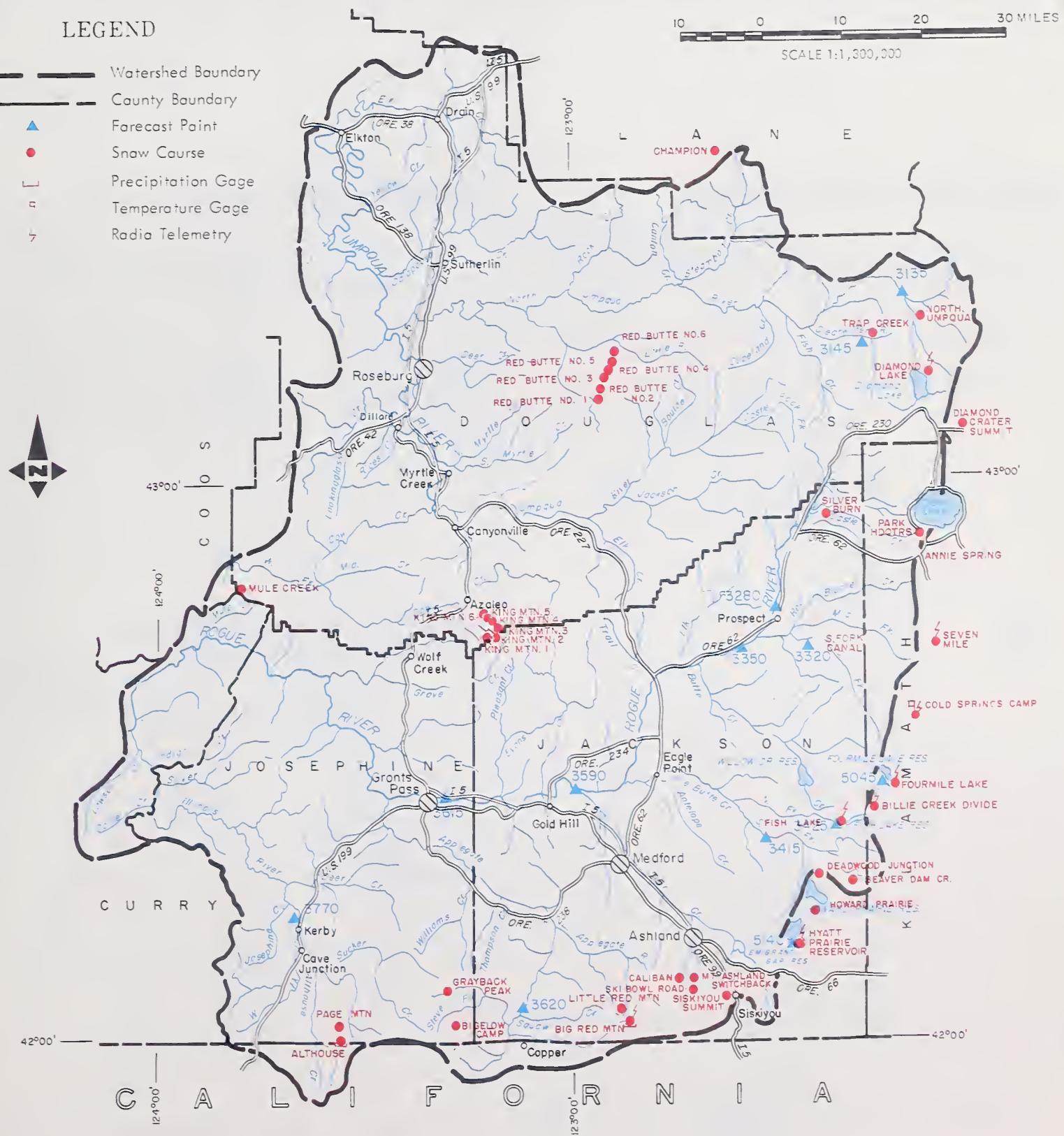
* Multiple purpose reservoir--space reserved primarily for flood runoff.

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON

GENERAL OUTLOOK

Water users in the Rogue and Umpqua basins who have stored supplies available should have adequate water this summer. All other users should experience water shortages. The mountain snowpack is extremely deficient. Winter precipitation has been 78 percent of average. Reservoir storage is good except at Fourmile which will not fill. Streamflows will generally be much below normal this summer. A wet and cool spring is needed to help this situation. If normal weather conditions are encountered, stream levels will likely recede 2 to 3 weeks earlier than normal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year	Average C
Applegate near Copper	103	80	April-Sept.		129
Clearwater above Trap Creek	53	75	April-Sept.		71
Fourmile Lake net Inflow	3.0	77	April-Sept.		3.9
Hyatt Reservoir net Inflow	2.6	53	April-July		4.9
Illinois River near Kerby	123	70	April-July		176
	128	70	April-Sept.		183
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	9.5	68	April-Sept.		14.0
Little Butte, S. Fk. near Lake Creek	20	64	April-July		31
Red Blanket Creek nr. Prospect	25	71	April-July		35
Rogue above Prospect	173	67	April-July		257
	216	69	April-Sept.		314
Rogue, South Fork near Prospect	41	66	April-July		62
	49	66	April-Sept.		74
Rogue at Raygold near Central Point	518	68	April-July	706	756
	644	70	April-Sept.	843	919
Rogue at Grants Pass	633	70	April-Sept.		908
Sucker Cr. blw. Little Grayback nr. Holland	40	69	April-July		58
Umpqua, No. blw. Lemolo Res.nr. Toketee Falls	133	78	April-Sept.		170
Umpqua, So. near Tiller	115	63	April-July		183
So.Fk. Big Butte Cr. nr. Butte Falls	35	67	March-July		52

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	100	April 30	May 15
South Umpqua nr. Tiller	140	June 25	July 10
	90	July 13	July 30
	60	Aug. 1	Aug. 27

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Emigrant Lake	39.0	33.8	31.5	29.3
Fish Lake	8.0	5.2	5.7	6.0
Fourmile Lake	16.1	6.0	7.5	9.9
Howard Prairie	60.0	58.0	35.5	45.7
Hyatt Prairie	16.1	14.3	11.3	12.4
Lost Creek	315.0	234.5	224.2	--

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

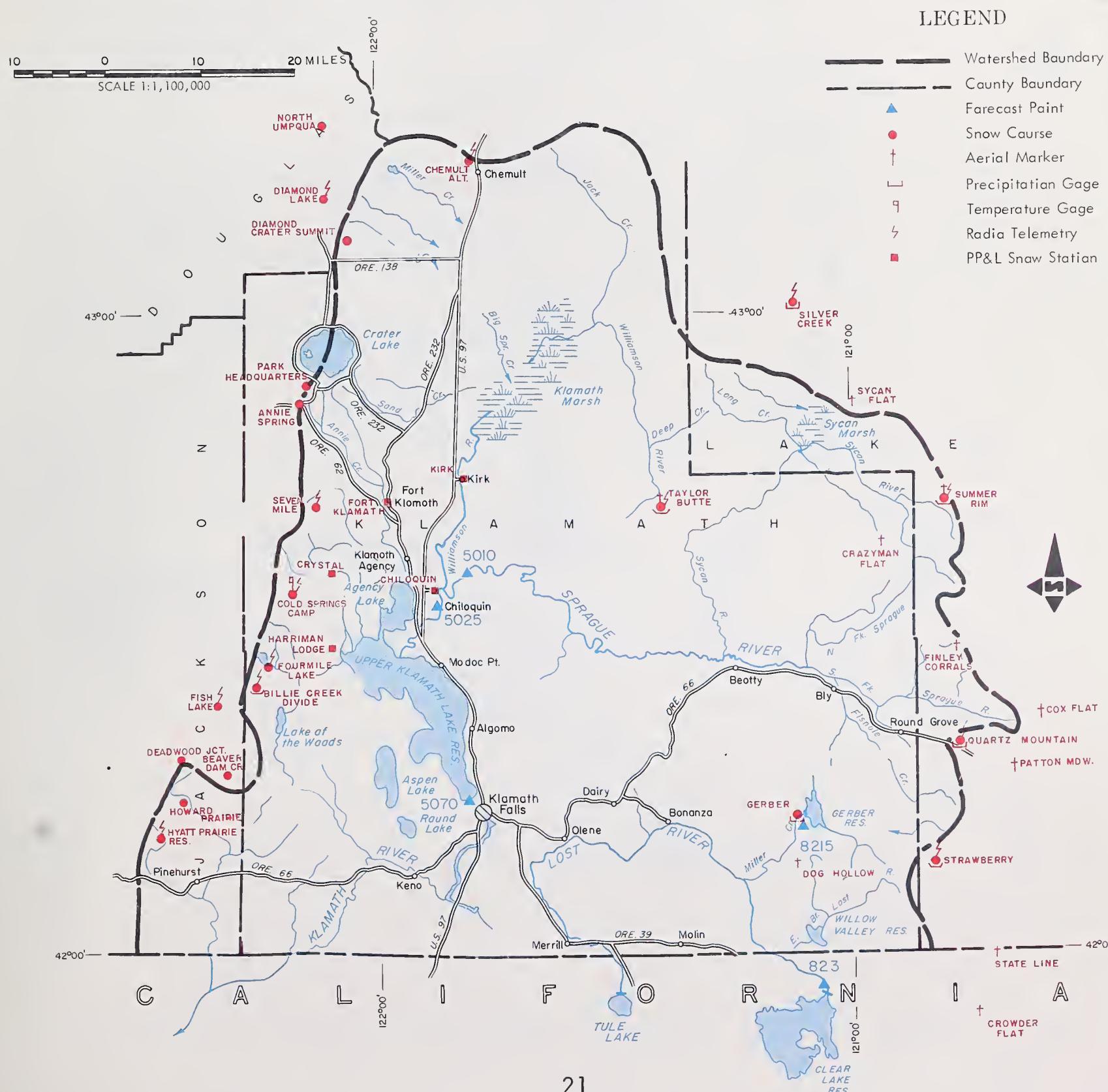
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Applegate	2	140	72
Bear Creek	3	139	72
Butte Creek	4	58	31
Illinois River	3	55	35
North Umpqua	3	28	19
Rogue River	4	84	48

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

GENERAL OUTLOOK

Klamath County should have adequate supplies of water this summer except for users dependent on direct diversion on the Sprague and Williamson Rivers. Here below normal supplies will be available. The snowpack is slightly below average on the Sprague and extremely deficient on the Williamson and in the Cascades. Winter precipitation in Klamath County has been near normal. Reservoir storage is near average except at Clear Lake which is 50,000 acre feet below the March 1 average. Streamflow this summer will be much below average on the Williamson and below average on the Sprague.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET
			Last Year	Average C
Clear Lake Reservoir Inflow	85	115	March-July	74
Gerber Reservoir Inflow	38	115	March-July	33
Sprague near Chiloquin	234	86	March-July	272
	209	86	April-Sept.	242
Upper Klamath Lake net Inflow	467	74	March-July	407
	368	70	April-Sept.	331
Williamson below Sprague River	265	65	April-Sept.	255

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Clear Lake	440.2	199.2	153.0	250.7
Gerber	94.0	55.0	36.1	55.9
Upper Klamath Lake	584.0	430.9	406.2	409.6

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Lost River	4	118	108
Sprague River	3	109	93
Upper Klamath	6	95	60
Williamson River	3	72	39

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

**WATER SUPPLY OUTLOOK
LAKE COUNTY, GOOSE LAKE WATERSHEDS
OREGON**

GENERAL OUTLOOK

Lake County should have excellent water supplies available to all users. The snowpack is above average. New record maximum amounts of snow were measured at Dismal Swamp and Little Bally Mountain. Winter precipitation has been 120 percent of average. Reservoir storage is good except at Thompson Valley. The snow in the Silver Creek area is mostly gone and unless more than average amounts of rainfall are received during the next three months, Thompson Valley will not fill. Streams heading in the Warner Mountains will recede 3 to 4 weeks later than usual.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Chewaucan near Paisley	85	96	March-July	46	88
Cottonwood Creek nr. Lakeview	15.0	129	March-July		11.6
Deep above Adel	105	131	March-July		80
Drews Reservoir net Inflow	41	100	March-July		41
Honey Creek near Plush	29	145	March-July		20
Silver Creek near Silver Lake	12.0	85	April-July		14.1
Twentymile near Adel	50	192	March-July		26
Bridge Creek nr. Spahr Ranch nr. Silver Lake	3.0	80	March-July		3.8

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Honey Creek nr. Plush	100	June 9	May 15
	50	June 25	May 30

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Cottonwood	8.7	4.9	3.7	3.5
Drews	63.0	45.8	34.3	42.9
Thompson Valley	19.5	4.8	8.6	15.3

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

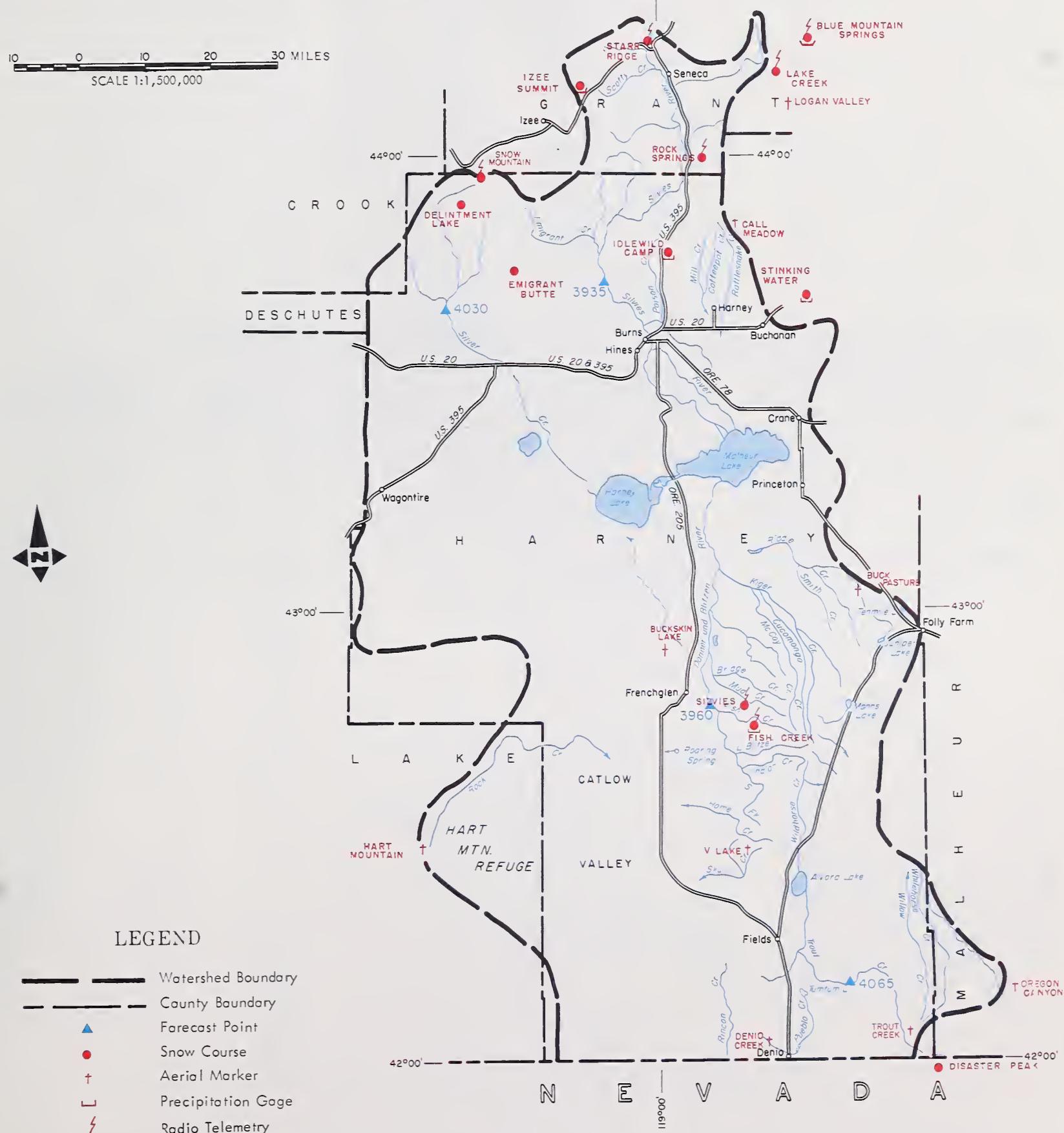
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Chewaucan River	3	109	93
Deep Creek	3	141	155
Drew Creek	3	118	99
Honey Creek	3	146	161
Silver Creek	3	42	39
Twentymile Creek	2	223	267

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

GENERAL OUTLOOK

Harney County should have adequate water supplies available this coming summer. The mountain snow cover is excellent except at the lower elevations. Winter precipitation during the November-February period has been 96% of average. Streamflow volumes will be near normal in the north half of the county and slightly above in the Steens area. Stream levels should recede about 1 week to 10 days later than usual this summer.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Donner und Blitzen near Frenchglen	68	115	March-July	59	
	65	114	April-Sept.	57	
Silver near Riley	15.0	95	April-July	15.8	
Silvies River near Burns	97	101	March-July	96	
	77	100	April-Sept.	77	
Trout Creek near Denio	11.7	126	March-July	9.3	
	10.3	117	April-Sept.	8.8	

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Silvies nr. Burns	400	May 7	May 5
	200	June 4	May 21
	100	June 12	June 9
	50	June 28	June 23
Donner und Blitzen	200	June 22	June 15
	100	July 15	July 5

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Donner und Blitzen R.	3	86	122
Silver Creek	3	90	86
Silvies River	4	75	100
Trout Creek	3	--	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)
		Last Yr.	Ave. c	
OWYHEE, MALHEUR WATERSHEDS				
Antelope Ridge (Ida.)	2/26	17	6.0	8.9 6.9b
Battle Creek (Ida.) *	N/R			6.4 3.2
Bear Creek (Nev.) *	N/R			17.0 17.9
Big Bend (Nev.)	2/26	30	8.1	9.4 7.5
Blue Mountain Springs	2/28	43	14.8	14.8 14.2
Blue Mtn. Spgs. Plw.(T)	3/1	--	16.6	18.6 --
Blue Mtn. Spgs. Plw.(S)	2/28	43	13.0	17.5 15.1b
Blue Mtn. Spgs. Plw.(M)	2/28	--	15.2	17.0 11.3b
Boulder Creek *	N/R			
Buck Pasture *	N/R			7.6 2.3
Buckskin, Lower (Nev.)	2/26	24	7.7	8.6 7.1
Buckskin, Upper (Nev.)	2/26	27	8.5	12.8 8.3
Bull Basin (Ida.) *	N/R			1.4 1.2
Bully Creek *	N/R			3.9 2.1
Call Meadows *	N/R			7.0 3.7
Columbia Basin (Nev.)	2/29	22	6.2	11.2 8.1b
Disaster Peak (Nev.)	2/26	41	16.2	13.5 11.6
Eldorado Pass	2/26	7	2.0	5.4 3.1
Fawn Creek (Nev.)	2/26	17	4.8	8.8 5.2b
Fish Creek *	N/R			21.0 20.0
Fish Creek	2/29	75	27.0	23.2 20.5b
Fish Creek Pillow(T)	3/1	--	27.9	-- --
Fish Creek Pillow(S)	2/29	77	28.0	23.2 --
Fish Creek Pillow(M)	2/29	--	26.8	-- --
Flag Prairie *	N/R			5.5 4.6
Fox Creek (Nev.)	N/R			10.5 9.6b
Fry Canyon (Nev.)	2/26	23	7.4	8.2 5.9b
Gold Creek (Nev.)	2/26	16	5.0	7.7 4.9
Granite Peak (Nev.)	2/26	53	15.8	13.0 13.1
Hyde Pasture (Ida.) *	N/R			7.6 5.3
Jack Creek, Lower (Nev.)	2/26	12	3.5	7.7 --
Jack Creek, Upper (Nev.)	2/26	26	7.2	9.9 6.7
Jack Peak (Nev.)	2/26	67	21.3	17.8 --
Lake Creek R.S.	2/27	28	9.6	12.0 9.0
Lake Creek R.S. Plw.(T)	3/1	--	14.3	11.0 --
Lake Creek R.S. Plw.(S)	2/27	31	11.0	12.5 --
Lake Creek R.S. Plw.(M)	2/27	--	10.6	9.1 --
Laurel Draw (Nev.)	2/26	25	7.6	8.6 7.4b
Logan Valley *	N/R			7.8 7.4
Lockout Butte *	N/R			4.2 0.2
Louse Canyon *	N/R			10.1 3.7
Martin Creek (Nev.)	2/26	35	11.2	6.6 8.4
Merritt Mountain (Nev.) *	2/29	24	7.0	8.5 6.9b
Midas (Nev.)	2/26	1	0.1	5.7 2.2
Mud Flat (Ida.)	2/26	19	6.5	8.6 6.0
Oregon Canyon *	N/R			6.7 4.4
Quian Ridge (Nev.) *	N/R			3.1 1.6
Red Canyon (Ida.) *	N/R			4.2 6.6
Rock Spring	2/27	18	7.6	8.3 5.0
Rock Spring Plw.(T)	----			
Rock Spring Plw.(S)	2/27	26	9.5	9.0 --
Rock Spring Plw.(M)	2/27	--	11.3	7.0 --
Rodeo Flat (Nev.)	2/26	19	6.0	9.1 4.8
76 Creek (Nev.) *	2/29	44	11.9	11.0 10.7
Silver City (Ida.)	2/26	48	16.3	16.6 13.7
Silver City (Ida.) *	N/R			-- 12.6b
Silvies *	N/R			11.5 7.6
Silvies	3/3	38	13.0	15.1 9.8
Silvies Pillow (T)	3/1	--	12.9	20.7 --
Silvies Pillow (S)	3/3	32	10.0	-- --
Silvies Pillow (M)	3/3	--	6.1	23.8 19.3b
South Mountain #2 (Ida.)	2/26	48	15.6	15.0 11.6
South Mtn. #2 Plw.(T)	N/R			13.2 --
Stag Mountain (Nev.) *	2/29	20	5.4	8.3 5.4b
Stinking Water	2/29	0	0.0	3.9b 2.4
Succor Creek (Ida.)	N/R			9.8 5.6
Taylor Canyon (Nev.)	2/26	11	3.9	8.3 4.5
Toe Jam (Nev.) *	2/29	37	10.7	-- 8.6b
Tremewan Ranch (Nev.) *	2/29	0	0.0	-- 1.5
Trout Creek *	N/R			10.1 6.7
"V" Lake *	N/R			8.4 6.1
Vaught Ranch (Ida.) *	N/R			7.6 4.1b
War Eagle (Ida.) *	N/R			23.2 19.6b

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)
		Last Yr.	Ave. c	
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS				
Aneroid Lake #2	2/27	76	26.4	20.0 27.6
Aneroid Lake #2 Plw.(S)	2/27	90	32.3	-- --
Aneroid Lake #2 Plw.(M)	2/27	--	23.9	-- --
Anthony Lake	2/29	58	20.2	24.1 22.7
Bald Mountain (OR) *	2/25	60	21.0	21.9 19.4
Beaver Reservoir (Rev.)	2/27	28	9.0	8.2 10.8
Beaver Res. Pillow (S)	2/27	22	6.8	7.3 --
Beaver Res. Pillow (M)	----			
Bigelow Camp Pillow (S)	2/26	TR	0.1	-- --
Bigelow Camp Pillow (M)	2/26	--	0.0	-- --
Big Sheep *	2/25	75	22.5	22.7 23.1
Blue Mtn. Summit	2/26	24	7.5	10.0 7.9
Bourne	2/26	37	12.8	17.8 13.8
Bourne Pillow (T)	3/1	--	15.1	20.5 --
Bourne Pillow (S)	2/26	46	15.1	19.3 --
Bourne Pillow (M)	2/26	--	15.2	20.9 --
County Line	2/27	5	2.4	8.2 4.7
County Line Pillow (T)	----			
County Line Pillow (S)	2/27	0	0.0	8.0 --
County Line Pillow (M)	2/27	--	0.1	7.8 --
Dooley Mountain	2/28	22	6.8	8.1 7.9
Eilertson Meadows	2/26	27	9.3	12.2 10.2
Eilertson Mdw. Plw.(S)	2/26	30	9.1	12.2 --
Eilertson Mdw. Plw.(M)	2/26	--	7.2	-- --
Eldorado Pass	2/26	7	2.0	5.4 3.1
Gold Center	2/26	26	9.1	15.0 11.5
Gold Center Pillow (T)	----			
Gold Center Pillow (S)	2/26	23	8.3	13.3 --
Gold Center Pillow (M)	2/26	--	6.1	11.9 --
Goodrich Lake	2/29	33	9.0	12.4 12.0
Little Alps	2/29	15	5.3	10.0 6.7b
Little Antone	2/29	16	5.8	11.7 --
Little Antone (Alt.)	2/29	19	7.1	14.3 10.9
Lucky Strike	2/27	24	2.4	13.7 --
Lucky Strike Pillow (T)	3/1	--	9	4.0 13.0 --
Lucky Strike Pillow (S)	2/27	9	4.0	13.0 --
Lucky Strike Pillow (M)	2/27	--	1.7	17.3 9.7b
Meacham	2/27	6	3.0	13.2 9.2
Mirror Lake *	2/25	155	58.9	43.9 58.3b
Moss Spring	2/26	48	16.8	20.6 20.2
Moss Spring Pillow(T)	----			
Moss Spring Pillow(S)	2/26	53	19.2	-- --
Moss Spring Pillow(M)	2/26	--	16.4	-- --
Mt. Howard Pillow(S)	2/25	44	12.5	19.8 --
Mt. Howard Pillow(M)	2/25	--	8.3	-- --
Schneider Meadow	2/25	71	25.4	29.6 26.7
Schneider Meadow Plw.(T)	----			
Schneider Meadow Plw.(S)	2/25	71	25.4	-- --
Schneider Meadow Plw.(M)	2/25	--	19.7	24.2 --
Schoolmarm	2/25	80	28.0	21.6 25.5
Standley *	2/25	36	12.6	17.8 14.6
Taylor Green	2/26	49	17.0	21.3 --
Taylor Green Pillow(T)	3/1	--	17.2	21.8 --
Taylor Green Pillow(S)	2/26	47	18.7	27.7 22.1
Taylor Green Pillow(M)	2/26	--	16.2	19.8 --
Tipton	2/26	24	9.1	11.0 9.6
Tipton Pillow (T)	2/27	--	10.2	-- --
Tipton Pillow (S)	2/26	32	10.2	-- 12.6b
Tipton Pillow (M)	2/26	--	8.2	-- --
Tollgate	2/27	47	18.7	27.7 22.1
TV Ridge *	2/25	58	20.3	14.9 15.4b
West Eagle Meadows *	2/25	70	24.5	29.7 --
Wolf Creek Pillow (T)	3/1	--	12.9	11.8 --
Wolf Creek Pillow (S)	2/26	44	14.6	-- --
Wolf Creek Pillow (M)	2/26	--	11.8	-- --

* Aerial

N/R No Report

TR Trace

T = Telemetry Measurement

S = Snow Tube Measurement

M = Manometer Measurement

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MARCH 1, 1980

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. c
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
Arbuckle Mountain	2/27	15	6.3	16.5	9.0
Arbuckle Mtn. Plw. (T)	----			19.0	--
Arbuckle Mtn. Plw. (S)	2/27	42	14.9	18.3	--
Arbuckle Mtn. Plw. (M)	2/27	--	17.4	19.3	20.0b
Blue Mountain Camp	2/27	12	5.7	20.0	13.6
Bowman Springs Plw. (T)	2/27	--	9.3	14.7	--
Bowman Springs Plw. (S)	2/27	18	6.8	12.0	--
Bowman Springs Plw. (M)	2/27	--	8.2	15.7	--
Butte Creek Summit	N/R				
Emigrant Springs	2/27	0	0.0	11.6	5.0
Emigrant Springs Plw. (S)	2/27	0	0.0	10.3	--
Emigrant Springs Plw. (M)	2/27	--	0.2	--	--
High Ridge Pillow (T)	2/28	--	18.5	23.1	--
High Ridge Pillow (S)	2/28	50	18.6	29.5	29.4
High Ridge Pillow (M)	2/28	--	17.3	23.2	14.5b
Lucky Strike	2/27	19	7.1	14.3	10.9
Lucky Strike Pillow (T)	3/1	--	2.4	13.7	--
Lucky Strike Pillow (S)	2/27	9	4.0	13.0	--
Lucky Strike Pillow (M)	2/27	--	1.7	17.3	9.7b
Madison Butte Pillow (T)	----				
Madison Butte Pillow (S)	2/27	2	0.5	9.7	--
Madison Butte Pillow (M)	2/27	--	0.3	11.5	--
Meacham	2/27	6	3.0	13.2	9.2
Tollgate	2/27	47	18.7	27.7	22.1
UPPER JOHN DAY WATERSHEDS					
Anthony Lake	2/29	58	20.2	24.1	22.7
Arbuckle Mountain	2/27	15	6.3	16.5	9.0
Arbuckle Mountain Plw. (T)	----			19.0	--
Arbuckle Mountain Plw. (S)	2/27	42	14.9	18.3	--
Arbuckle Mountain Plw. (M)	2/27	--	17.4	19.3	20.0b
Blue Mountain Springs	2/28	43	14.8	14.8	14.2
Blue Mtn. Spgs. Plw. (T)	3/1	--	16.6	18.6	--
Blue Mtn. Spgs. Plw. (S)	2/28	43	13.0	17.5	15.1b
Blue Mtn. Spgs. Plw. (M)	2/28	--	15.2	17.0	11.3b
Blue Mountain Summit	2/26	24	7.5	10.0	7.9
Butte Creek Summit	N/R				
Derr	2/28	21	7.0	11.8	8.3
Derr Pillow (T)	----				
Derr Pillow (S)	2/28	37	11.5	--	--
Derr Pillow (M)	2/28	--	12.9	10.7	--
Gold Center	2/26	26	9.1	15.0	11.5
Gold Center Plw. (T)	----				
Gold Center Plw. (S)	2/26	23	8.3	13.3	--
Gold Center Plw. (M)	2/26	--	6.1	11.9	--
Izee Summit	2/28	19	5.4	10.7	6.8
Lucky Strike	2/27	19	7.1	14.3	10.9
Lucky Strike Plw. (T)	3/1	--	2.4	13.7	--
Lucky Strike Plw. (S)	2/27	9	4.0	13.0	--
Lucky Strike Plw. (M)	2/27	--	1.7	17.3	9.7b
Marks Creek	3/4	0	0.0	6.7	2.9
Ochoco Meadows	2/29	21	7.6	11.4	8.1
Ochoco Mdw. Plw. (T)	----				
Ochoco Mdw. Plw. (S)	2/29	30	11.8	13.8	--
Ochoco Mdw. Plw. (M)	2/29	--	9.4	7.8	--
Olive Lake *	2/26	46	15.2	17.1	17.3b
Schoolmarm	e				
Snow Mountain	2/26	41	12.0	14.8	11.3
Snow Mountain Plw. (T)	3/1	--	8.3	11.3	--
Snow Mountain Plw. (S)	2/26	33	10.0	11.3	11.3b
Snow Mountain Plw. (M)	----				
Starr Ridge	2/28	10	3.8	8.0	5.2
Starr Ridge Plw. (T)	----				
Starr Ridge Plw. (S)	2/28	11	5.0	9.5	--
Starr Ridge Plw. (M)	2/28	--	3.0	5.5	--
Tipton	2/26	24	9.1	11.0	9.6
Tipton Pillow (T)	2/27	--	10.2	--	--
Tipton Pillow (S)	2/26	32	10.2	11.8	12.6b
Tipton Pillow (M)	2/26	--	8.2	--	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. c
UPPER DESCHUTES, CROOKED WATERSHEDS					
Bald Peter	2/28	59	21.2	24.0	--
Caldwell Ranch	e				
Cascade Summit	2/25	29	10.5	17.4	24.9
Cascade Summit Plw. (S)	2/25	39	12.8	20.5	--
Cascade Summit Plw. (M)	2/25	--	11.0	--	--
Chemult Alternate	2/28	9	3.1	5.3	10.5
Chemult Alt. Plw. (S)	2/28	6	3.1	--	--
Chemult Alt. Plw. (M)	----				
Derr	2/28	21	7.0	11.8	8.3
Derr Pillow (T)	----				
Derr Pillow (S)	2/28	37	11.5	--	--
Derr Pillow (M)	2/28	--	12.9	10.7	--
Hogg Pass	2/26	42	14.2	27.5	34.6
Hogg Pass Pillow (T)	3/1	--	17.3	24.0	--
Hogg Pass Pillow (S)	2/26	49	17.9	29.3	--
Hogg Pass Pillow (M)	2/26	--	18.0	24.0	--
Hungry Flat	3/1	0	0.0	4.1	4.9
Irish-Taylor Pillow (T)	2/28	--	23.2	--	--
Irish-Taylor Pillow (S)	2/28	59	18.8	20.3	34.5 b
Irish-Taylor Pillow (M)	2/28	--	23.1	14.9	--
Lionshead *	2/29	18	6.4	13.5	--
Marks Creek	3/4	0	0.0	6.7	2.9
New Crescent Lake	2/27	12	5.0	10.2	12.1
New Crescent Lake Plw. (S)	2/27	13	5.4	11.5	--
New Crescent Lake Plw. (M)	2/27	--	2.4	--	--
New Dutchman Flat #2	3/1	91	38.5	34.7	43.8
Ochoco Meadows	2/29	21	7.7	11.4	8.1
Ochoco Meadows Plw. (T)	----				
Ochoco Meadows Plw. (S)	2/29	30	11.8	13.8	--
Ochoco Meadows Plw. (M)	2/29	--	9.4	7.8	--
Racing Creek	2/28	18	6.4	13.6	12.3 b
Snow Mountain	2/26	41	12.1	14.8	11.3
Snow Mountain Plw. (T)	3/1	--	8.3	11.3	--
Snow Mountain Plw. (S)	2/26	33	9.8	11.3	11.3 b
Snow Mountain Plw. (M)	----				
Summit Lake Pillow (T)	----				
Summit Lake Pillow (S)	2/27	57	20.0	22.8	33.1
Summit Lake Pillow (M)	2/27	--	21.1	17.5	--
Tamarack	2/27	6	2.3	2.2	4.6
Tangent	3/1	37	13.6	17.7	20.6
Three Creek Butte	2/26	5	2.0	7.1	9.4
Three Creek Meadow	2/26	15	6.4	10.4	15.2
Three Creek Mdw. Plw. (T)	----				
Three Creek Mdw. Plw. (S)	2/26	38	12.1	14.3	--
Three Creek Mdw. Plw. (M)	2/26	--	8.6	10.4	--
Waldo Lake	e				
Whitewater Meadow *	2/29	0	0.0	2.0	--
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS					
Brooks Meadow	2/28	26	7.5	11.7	10.2
Clear Lake	2/28	12	3.4	10.8	9.2
Clear Lake Pillow (S)	2/28	24	6.0	15.9	--
Clear Lake Pillow (M)	----				
Clear Lake Expt.	2/28	24	6.0	15.9	14.2
Greenpoint	2/29	44	15.4	10.7	15.0
Greenpoint Pillow (T)	3/1	--	17.1	15.9	--
Greenpoint Pillow (S)	2/29	48	17.2	7.7	--
Greenpoint Pillow (M)	2/29	--	15.9	12.2	--
Mt. Hood Test Site (T)	2/28	--	44.3	32.0	50.6 b
Mt. Hood Test Site (S)	2/26	110	46.0	49.0	45.9 b
Mt. Hood Test Site (M)	2/26	--	49.3	35.7	--
Mud Ridge Pillow (T)	3/1	--	19.0	19.4	--
Mud Ridge Pillow (S)	2/28	45	15.5	18.8	26.1
Mud Ridge Pillow (M)	2/28	--	19.4	21.0	--
Red Hill	2/28	62	23.4	26.5	33.4
Red Hill Pillow (T)	3/1	--	33.8	38.6	--
Red Hill Pillow (S)	2/28	65	26.2	25.3	--
Red Hill Pillow (M)	2/28	--	32.2	--	--
Still Creek	2/28	37	12.5	19.5	20.8
Switchback	2/28	43	15.8	8.1	12.8
Tilly Jane	2/23	80	29.0	26.5	36.4

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

MARCH 1, 1980

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	Last Yr. Ave. ^c
LOWER COLUMBIA WATERSHED					
Blazed Alder Pillow(T)	N/R				
Blazed Alder Pillow(S)	---				
Blazed Alder Pillow(M)	---				
Mt. Hood Test Site(T)	2/28	--	44.3	32.0	50.6 ^b
Mt. Hood Test Site(S)	2/26	110	46.0	49.0	45.9 ^b
Mt. Hood Test Site(M)	2/26	--	49.3	35.7	--
Mud Ridge Pillow(T)	3/1	--	19.0	19.4	--
Mud Ridge Pillow(S)	2/28	45	15.5	18.8	26.1
Mud Ridge Pillow(M)	2/28	--	19.4	21.0	--
North Fork Res. (T)	3/1	--	6.0	14.3	--
North Fork Res. (S)	---				
North Fork Res. (M)	---				
Still Creek	2/28	37	12.5	19.5	20.8
WILLAMETTE WATERSHEDS					
Cascade Summit	2/25	29	10.5	17.4	24.9
Cascade Summit Pillow(T)	---				
Cascade Summit Pillow(S)	2/25	39	12.8	20.5	--
Cascade Summit Pillow(M)	2/25	--	11.0	--	--
Champion	2/27	8	3.3	18.1	23.3
Clackamas Lake	2/27	17	6.6	7.6	11.3
Clackamas Lake Plw.(S)	---				
Clackamas Lake Plw.(M)	---				
Clear Lake	2/28	12	3.4	10.8	9.2
Clear Lake Pillow(S)	2/28	24	6.0	15.9	--
Clear Lake Pillow(M)	---				
Clear Lake Expt.	2/28	24	6.0	15.9	14.2
Daly Lake Plw. (T)	---				
Daly Lake Plw. (S)	2/29	0	0.0	--	--
Daly Lake Plw. (M)	2/29	--	0.0	--	--
Dead Horse Grade	2/29	0	0.0	13.0	14.4
Golden Curry Creek	2/27	0	0.0	3.5	4.8 ^b
Hogg Pass	2/26	42	14.2	27.5	34.6
Hogg Pass Pillow(T)	3/1	--	17.3	24.0	--
Hogg Pass Pillow(S)	2/26	49	17.9	29.3	--
Hogg Pass Pillow(M)	2/26	--	18.0	24.0	--
Holland Meadows Plw.(S)	2/25	15	5.3	--	--
Holland Meadows Plw.(M)	2/25	--	2.8	--	--
Jump Off Joe Pillow(T)	3/1	--	0.0	10.0	--
Jump Off Joe Pillow(S)	2/26	0	0.0	--	--
Jump Off Joe Pillow(M)	2/26	--	0.0	--	--
Layng Creek	2/27	0	0.0	0.0	--
Little Meadows Plw.(T)	---				
Little Meadows Plw.(S)	2/29	4	1.5	--	--
Little Meadows Plw.(M)	2/29	--	1.9	--	--
Lost Creek Ranch	2/29	0	0.0	1.1	3.8
Lund Park	2/27	0	0.0	0.0	0.6
Marion Forks	2/26	2	0.9	8.6	12.0
Marion Forks Pillow(T)	---				
Marion Forks Pillow(S)	2/26	4	1.4	8.5	--
Marion Forks Pillow(M)	2/26	--	1.0	8.4	--
Marys Peak	3/3	0	0.0	--	9.2 ^b
McCredie Springs	2/25	0	0.0	0.0	0.4 ^b
McKenzie	2/29	47	18.2	31.6	38.4
McKenzie Pillow(S)	2/29	42	17.0	26.3	--
McKenzie Pillow(M)	2/29	--	15.7	--	--
Mt. Hood Test Site(T)	2/28	--	44.3	32.0	50.6 ^b
Mt. Hood Test Site(S)	2/26	110	46.0	49.0	45.9 ^b
Mt. Hood Test Site(M)	2/26	--	49.3	35.7	--
Peavine Ridge Pillow(T)	N/R				
Peavine Ridge Pillow(S)	---				
Peavine Ridge Pillow(M)	---				
Railroad Overpass	2/25	0	0.0	0.0	2.0
Railroad Overpass Plw.(T)	---				
Railroad Overpass Plw.(S)	2/25	0	0.0	0.0	--
Railroad Overpass Plw.(M)	2/25	--	0.0	0.0	--
Roaring River Plw.(T)	---				
Roaring River Plw.(S)	2/29	26	9.5	--	--
Roaring River Plw.(M)	2/29	--	11.3	--	--
Saddle Mtn. Pillow(T)	N/R				
Saddle Mtn. Pillow(S)	---				
Saddle Mtn. Pillow(M)	---				

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	Last Yr. Ave. ^c
WILLAMETTE WATERSHEDS (CONT.)					
Salt Creek Falls	2/25	0	0.0	8.7	13.4
Salt Creek Falls Plw.(S)	2/25	10	3.9	13.3	--
Salt Creek Falls Plw.(M)	2/25	--	2.7	--	--
Santiam Junction	2/26	11	4.6	17.1	21.4
Santiam Junction Plw.(T)	3/1	--	6.3	9.8	--
Santiam Junction Plw.(S)	2/26	17	7.0	18.2	--
Santiam Junction Plw.(M)	2/26	--	7.2	8.3	--
Seine Creek Pillow(T)	N/R				
Seine Creek Pillow(S)	---				
Seine Creek Pillow(M)	---				
Still Creek	2/28	37	12.5	19.5	20.8
Summit Lake Pillow(T)	---				
Summit Lake Pillow(S)	2/27	57	20.0	22.8	33.1
Summit Lake Pillow(M)	2/27	--	21.1	17.5	--
Timothy Lake	2/28	23	6.5	10.7	12.4 ^b
Waldo Lake	e				
Weaver Creek	2/27	0	0.0	0.0	0.7 ^b
White Branch Slide	2/29	0	0.0	5.4	7.0
Whitewater Bridge	2/26	0	0.0	4.7	4.8
ROGUE, UMPQUA WATERSHEDS					
Althouse	2/29	0	0.0	6.2	7.5
Annie Spring	3/3	82	29.0	25.4	37.2
Beaver Dam Creek	2/29	7	3.1	6.6	12.5
Big Red Mountain	2/27	51	21.1	14.0	24.6
Big Red Mountain Plw.(T)	---				
Big Red Mountain Plw.(S)	2/27	45	17.2	--	--
Big Red Mountain Plw.(M)	2/27	--	16.4	12.7	--
Billie Creek Divide	2/26	27	9.1	9.0	18.6
Billie Cr. Div. Pillow(T)	3/1	--	10.9	10.7	--
Billie Cr. Div. Pillow(S)	2/26	27	10.3	9.3	--
Billie Cr. Div. Pillow(M)	2/26	--	10.2	10.2	--
Caliban	2/25	82	29.0	12.8	30.8 ^b
Caliban (Alt.)	2/25	77	26.0	14.6	--
Champion	2/27	8	3.3	18.1	23.3
Cold Springs Camp	2/28	60	20.7	18.6	29.4
Cold Springs Camp Plw.(T)	---				
Cold Springs Camp Plw.(S)	2/28	36	13.6	18.5	--
Cold Springs Camp Plw.(M)	2/28	--	15.2	12.5	--
Deadwood Junction	2/29	0	0.0	4.9	8.6
Diamond-Crater Summit	e				
Diamond Lake	2/25	19	7.6	9.7	17.9
Diamond Lake Pillow(S)	2/25	21	8.2	12.0	--
Diamond Lake Pillow(M)	---				
Fish Lake	2/26	9	3.6	7.4	11.8 ^b
Fish Lake Pillow(T)	---				
Fish Lake Pillow(S)	2/26	13	4.8	7.7	--
Fish Lake Pillow(M)	---				
Fourmile Lake	2/26	32	11.7	11.0	20.4 ^b
Fourmile Lake Pillow(T)	3/1	--	17.1	15.6	--
Fourmile Lake Pillow(S)	2/26	51	15.7	10.3	--
Fourmile Lake Pillow(M)	2/26	--	17.1	13.6	--
Grayback Peak	2/26	28	11.2	9.0	20.5
Howard Prairie Reservoir	2/29	4	1.3	5.6	8.3
Hyatt Prairie	2/29	TR	0.1	4.3	7.3
Hyatt Prairie Pillow(T)	---				
Hyatt Prairie Pillow(S)	2/29	6	2.2	--	--
Hyatt Prairie Pillow(M)	2/29	--	1.1	6.5	--
King Mountain #1	2/27	0	0.0	7.3	7.6 ^b
King Mountain #2	2/27	0	0.0	5.7	5.0 ^b
King Mountain #2 Plw.(T)	---				
King Mountain #2 Plw.(S)	---				
King Mountain #2 Plw.(M)	---				
King Mountain #3	2/27	0	0.0	2.4	1.4 ^b
King Mountain #4	2/27	0	0.0	0.0	--
King Mountain #5	2/27	0	0.0	0.0	--
King Mountain #6	2/27	0	0.0	0.0	--
Little Red Mountain	e				
Mt. Ashland Switchback	2/25	88	26.2	15.5	29.9 ^b
Mule Creek	2/27	0	0.0	8.8	8.1 ^b
North Umpqua	2/28	1	0.5	9.9	13.3 ^b
Page Mountain	2/29	0	0.0	5.0	3.6 ^b
Park Headquarters	3/3	117	41.0	32.7	50.7 ^b

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)
			Last Yr.	Ave. ^c
ROGUE, UMPQUA WATERSHEDS (CONT.)				
Red Butte #1	2/27	0	0.0	6.7 11.9
Red Butte #2	2/27	0	0.0	5.3 7.8
Red Butte #3	2/27	0	0.0	3.8 4.6 ^b
Red Butte #4	2/27	0	0.0	1.6 1.7
Red Butte #5	2/27	0	0.0	0.0 0.4
Red Butte #6	2/27	0	0.0	0.0 0.2
Seven Mile	2/27	51	17.7	17.0 28.0 ^b
Seven Mile Pillow (T)	----			
Seven Mile Pillow (S)	2/27	45	16.4	8.0 --
Seven Mile Pillow (M)	2/27	--	17.4	10.8 --
Silver Burn	2/28	0	0.0	7.0 12.0
Siskiyou Summit	2/26	0	0.0	3.3 6.6
Ski Bowl Road	2/25	66	19.6	12.4 25.4 ^b
South Fork Canal	2/29	0	0.0	0.0 2.0 ^b
Trap Creek	2/28	0	0.0	9.5 11.6
KLAMATH WATERSHEDS				
Annie Spring	3/3	82	29.0	25.4 37.2
Billie Creek Divide	2/26	27	9.1	9.0 18.6
Billie Cr. Div. Plw. (T)	3/1	--	10.9	10.7 --
Billie Cr. Div. Plw. (S)	2/26	27	10.3	9.3 --
Billie Cr. Div. Plw. (M)	2/26	--	10.2	10.2 --
Chemult Alternate	2/28	9	3.1	5.3 10.5
Chemult Alternate Plw. (S)	2/28	6	3.1	-- --
Chemult Alternate Plw. (M)	----			
Chiloquin (PP&L)	2/28	0	0.0	-- 1.0 ^b
Cold Springs Camp	2/28	60	20.7	18.6 29.4
Cold Spgs. Camp Plw. (T)	----			
Cold Spgs. Camp Plw. (S)	2/28	.36	13.6	18.5 --
Cold Spgs. Camp Plw. (M)	2/28	--	15.2	12.5 --
Crazyman Flat *	2/25	34	11.9	9.4 8.0
Crowder Flat (Calif.) *	2/25	0	0.0	2.7 2.2
Crystal (PP&L)	2/28	0	0.0	-- 8.4 ^b
Diamond-Crater Summit	2/25	e		
Dog Hollow *	2/25	0	0.0	1.6 0.8
Finley Corrals *	2/25	51	18.4	13.0 14.0
Fort Klamath (PP&L)	2/28	0	0.0	-- 3.5 ^b
Fourmile Lake	2/26	32	11.7	11.0 20.4 ^b
Fourmile Lake Pillow (T)	3/1	--	17.1	15.6 --
Fourmile Lake Pillow (S)	2/26	51	15.7	10.3 --
Fourmile Lake Pillow (M)	2/26	--	17.1	13.6 --
Gerber	3/3	0	0.0	2.3 2.3 ^b
Harriman (PP&L)	2/28	0	0.0	-- 4.3 ^b
Howard Prairie	2/29	4	1.3	5.6 8.3
Hyatt Prairie Reservoir	2/29	TR	0.1	4.3 7.3
Hyatt Prairie Res. Plw. (T)	----			
Hyatt Prairie Res. Plw. (S)	2/29	6	2.2	-- --
Hyatt Prairie Res. Plw. (M)	2/29	--	1.1	6.5 --
Kirk (PP&L)	2/28	0	0.0	-- 5.5 ^b
Park Headquarters	3/3	117	41.0	32.7 50.7
Quartz Mountain	2/27	14	5.6	4.0 5.3
Quartz Mtn. Pillow (T)	----			
Quartz Mtn. Pillow (S)	2/27	21	6.7	6.0 --
Quartz Mtn. Pillow (M)	2/27	--	6.5	5.9 --
Seven Mile	2/27	51	17.7	17.0 28.0 ^b
Seven Mile Pillow (T)	----			
Seven Mile Pillow (S)	2/27	45	16.4	8.0 --
Seven Mile Pillow (M)	2/27	--	17.4	10.8 --
State Line (Calif.) *	2/28	18	6.3	6.5 7.1
Strawberry *	2/25	14	5.3	-- --
Strawberry	2/28	21	6.3	7.3 5.9 ^b
Strawberry Pillow (S)	2/28	16	5.7	6.8 --
Strawberry Pillow (M)	2/28	--	4.3	-- --
Summer Rim *	2/25	54	19.4	10.2 12.0 ^b
Summer Rim	2/29	48	14.8	13.8 14.0
Summer Rim Pillow (T)	3/1	--	14.9	8.9 --
Summer Rim Pillow (S)	2/29	49	15.2	10.0 16.1 ^b
Summer Rim Pillow (M)	2/29	--	16.8	10.6 8.3 ^b
Sycan Flat *	2/25	8	2.8	6.1 5.6
Taylor Butte	2/26	4	1.5	2.3 4.2
Taylor Butte Pillow (T)	3/1	--	3.9	-- --
Taylor Butte Pillow (S)	2/26	6	2.5	2.3 --
Taylor Butte Pillow (M)	2/26	--	2.6	-- --

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)
		Last Yr.	Ave. ^c	
LAKE COUNTY, GOOSE LAKE WATERSHEDS				
Adin Mountain (Calif.)	2/25	39	11.9	8.9 10.5
Bald Mountain (Nev.)	2/25	24	8.4	5.3 2.7
Bear Flat Meadow *	2/25	50	18.0	8.0 8.0
Camas Creek #1	2/27	27	10.7	10.0 8.4
Camas Creek #2	2/27	34	12.4	10.9 --
Cedar Pass (Calif.)	2/25	56	19.0	11.6 12.9
Colvin Creek *	2/25	22	7.7	5.5 4.1 ^b
Cox Flat *	2/25	6	2.1	5.3 6.8
Crowder Flat (Calif.) *	2/25	0	0.0	2.7 2.2
Dismal Swamp (Calif.) *	2/25	94	35.7	14.5 13.8
Finley Corrals *	2/25	51	18.4	13.0 14.0
Hart Mountain *	2/25	10	3.5	4.7 1.4
Little Bally Mtn. (Nev.) *	2/25	22	7.7	5.2 2.6
Mt. Bidwell (Calif.)	2/27	81	29.9	18.6 --
North Star (Calif.)	2/27	51	18.9	13.6 --
Patton Meadows *	2/25	62	22.3	11.5 14.5
Quartz Mountain	2/27	14	5.6	4.0 5.3
Quartz Mountain Plw. (T)	----			
Quartz Mountain Plw. (S)	2/27	21	6.7	6.0 --
Quartz Mountain Plw. (M)	2/27	--	6.5	5.9 --
Rogger Meadows *	2/25	54	19.4	13.3 --
Sherman Valley *	2/25	51	18.4	10.4 10.3
Silver Creek	2/26	0	0.0	1.8 1.1
Silver Creek Pillow (S)	2/29	16	5.8	8.4 --
Silver Creek Pillow (M)	2/29	--	5.8	-- --
State Line (Calif.) *	2/28	18	6.3	6.5 7.1
Strawberry *	2/25	14	5.3	-- --
Strawberry	2/28	21	6.3	7.3 5.9 ^b
Strawberry Pillow (S)	2/28	16	5.7	6.8 --
Strawberry Pillow (M)	2/28	--	4.3	-- --
Summer Rim *	2/25	54	19.4	10.2 12.0 ^b
Summer Rim	2/29	48	14.8	13.8 14.0
Summer Rim Pillow (T)	3/1	--	14.9	8.9 --
Summer Rim Pillow (S)	2/29	49	15.2	10.0 16.1 ^b
Summer Rim Pillow (M)	2/29	--	16.8	10.6 8.3 ^b
Sycan Flat *	2/25	8	2.8	6.1 5.6
HARNEY BASIN WATERSHEDS				
Blue Mountain Springs	2/28	43	14.8	14.8 14.2
Blue Mtn. Spgs. Plw. (T)	3/1	--	16.6	18.6 --
Blue Mtn. Spgs. Plw. (S)	2/28	43	13.0	17.5 15.1 ^b
Blue Mtn. Spgs. Plw. (M)	2/28	--	15.2	17.0 11.3 ^b
Buck Pasture *	N/R			7.6 2.3
Buckskin Lake *	N/R			1.4 0.3 ^b
Call Meadows *	N/R			7.0 3.7
Delintment Lake	2/26	22	7.0	-- 7.0 ^b
Denio Creek *	N/R			2.0 0.7
Disaster Peak (Nev.)	2/26	41	16.2	13.5 11.6
Emigrant Butte	2/29	TR	0.1	27.7 3.7 ^b
Fish Creek *	N/R			27.0 20.0
Fish Creek	2/29	75	27.0	23.2 20.5 ^b
Fish Creek Pillow (T)	3/1	--	27.9	-- --
Fish Creek Pillow (S)	2/29	77	28.0	23.2 --
Fish Creek Pillow (M)	2/29	--	26.8	-- --
Hart Mountain *	2/25	10	3.5	4.7 1.4
Idlewild Camp Alt.	2/29	TR	0.1	6.2 4.6 ^b
Izee Summit	2/28	19	5.4	10.7 6.8
Lake Creek R.S.	2/27	28	9.6	12.0 9.0
Lake Creek R.S. Plw. (T)	3/1	--	14.3	11.0 --
Lake Creek R.S. Plw. (S)	2/27	31	11.0	12.5 --
Lake Creek R.S. Plw. (M)	2/27	--	10.6	9.1 --
Oregon Canyon *	N/R			6.7 4.4
Rock Spring	2/27	18	7.6	8.3 5.0
Rock Spring Pillow (T)	----			
Rock Spring Pillow (S)	2/27	16	6.0	9.0 --
Rock Spring Pillow (M)	----			
Silvies *	N/R			11.5 7.6
Silvies	3/3	38	13.0	15.1 9.8
Silvies Pillow (T)	3/1	--	12.9	20.7 --
Silvies Pillow (S)	3/3	32	10.0	-- --
Silvies Pillow (M)	3/3	--	6.1	23.8 19.3 ^b
Snow Mountain	2/26	41	12.1	14.8 11.3
Snow Mountain Plw. (T)	3/1	--	8.3	11.3 --
Snow Mountain Plw. (S)	2/26	33	9.8	11.3 11.3 ^b
Snow Mountain Plw. (M)	----			
Starr Ridge	2/28	10	3.8	8.0 5.2
Starr Ridge Pillow (T)	----			
Starr Ridge Pillow (S)	2/28	11	5.0	9.5 --
Starr Ridge Pillow (M)	2/28	--	3.0	5.5 --
Stinking Water	2/29	0	0.0	3.9 ^a 2.4
Trout Creek	N/R			10.1 6.7
"V" Lake	N/R			8.4 6.1

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

MARCH 1, 1980

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average
Aneroid Lake #2 (Wallowa County)	7300	From 8/24 To 2/27	31.68"		
Arbuckle Mountain (Morrow County)	5400	From 1/29 To 2/27	3.25"		
Beaver Reservoir (Union County)	5150	From 1/30 To 2/27	1.80"		
Bigelow Camp (Josephine County)	5120	From 7/31 To 2/26	51.00"		
Big Red Mountain (Jackson County)	6250	From 7/79 To 2/27	48.24"		
Billie Creek Divide (Jackson County)	5310	From 1/29 To 2/26	4.20"		
Blue Mountain Springs (Grant County)	5900	From 1/30 To 2/28	5.04"		
Bourne (Baker County)	5800	From 1/30 To 2/26	3.36"		
Bowman Springs (Union County)	4580	From 1/29 To 2/27	2.87"		
Cascade Summit (Lane County)	4880	From 1/30 To 2/25	4.32"		
Chemult (Klamath County)	4760	From 2/1 To 2/28	3.12"		
Clear Lake (Wasco County)	3500	From 1/30 To 2/28	5.64"		
Cold Springs (Klamath County)	6100	From 1/31 To 2/28	5.16"		
County Line (Umatilla County)	4800	From 1/29 To 2/27	1.80"		
Daly Lake (Linn County)	3600	From 1/28 To 2/29	8.04"		
Derr (Wheeler County)	5670	From 2/6 To 2/28	3.00"		
Diamond Lake (Douglas County)	4600	From 1/28 To 2/25	4.08"		
Eilertson Meadow (Baker County)	5400	From 1/30 To 2/26	3.60"		
Fish Creek (Harney County)	7900	From 7/16 To 2/29	33.72"		
Fish Lake (Jackson County)	4665	From 1/29 To 2/26	3.60"		
Fourmile Lake (Klamath County)	6000	From 1/29 To 2/26	5.52"		
Gold Center (Grant County)	5340	From 1/30 To 2/26	2.88"		
Greenpoint (Hood River County)	3200	From 1/27 To 2/29	12.00"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

MARCH 1, 1980

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average
High Ridge (Umatilla County)	4150	From 1/31 To 2/28	6.72"		
Hogg Pass (Jefferson County)	4755	From 1/29 To 2/26	8.04"		
Holland Meadows (Lane County)	4900	From 1/28 To 2/25	4.92"		
Hyatt Prairie (Jackson County)	4900	From 2/1 To 2/29	3.60"		
Irish-Taylor (Deschutes County)	5500	From 2/1 To 2/28	4.68"		
Jump Off Joe (Linn County)	3400	From 1/29 To 2/26	6.48"		
Lake Creek (Grant County)	5120	From 1/30 To 2/27	2.40"		
Little Meadows (Linn County)	4000	From 1/28 To 2/29	9.12"		
Lucky Strike (Umatilla County)	5050	From 1/29 To 2/27	3.00"		
Madison Butte (Morrow County)	5250	From 1/29 To 2/27	2.76"		
Marion Forks (Linn County)	2730	From 1/29 To 2/26	9.00"		
Marks Creek (Crook County)	4540	From 1/30 To 3/4	1.00"		
McKenzie (Lane County)	5000	From 2/1 To 2/29	9.72"		
Moss Springs (Union County)	5850	From 1/30 To 2/26	5.52"		
Mt. Hood Test Site (Clackamas County)	5400	From 2/1 To 2/26	3.87"		
Mt. Howard (Wallowa County)	7910	From 1/27 To 2/25	4.20"		
New Crescent Lake (Klamath County)	4800	From 1/30 To 2/27	4.32"		
Ochoco Meadows (Crook County)	5200	From 6/28 To 2/29	19.44"		
Quartz (Lake County)	6300	From 1/30 To 2/27	4.68"		
Railroad Overpass (Lane County)	2750	From 1/30 To 2/25	2.64"		
Red Hill (Hood River County)	4400	From 1/30 To 2/28	11.40"		
Roaring River (Lane County)	4900	From 1/28 To 2/29	7.32"		
Rock Springs (Grant County)	5100	From 1/29 To 2/27	2.52"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

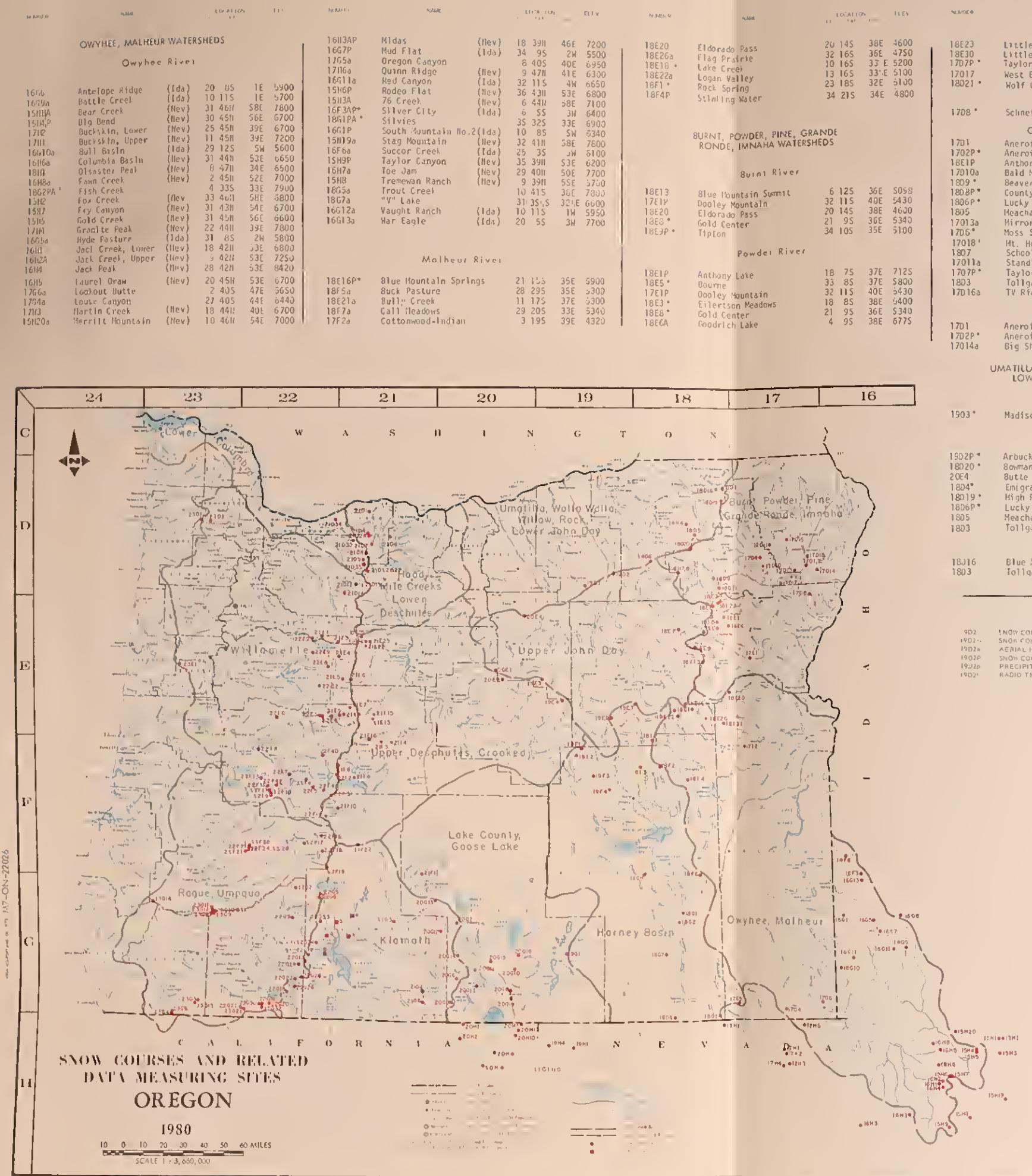
BASIC DATA SUPPLEMENT 2

MARCH 1, 1980

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^(c)
Salt Creek Falls (Lane County)	4000	From 1/30 To 2/25	4.44"		
Santiam Junction (Lane County)	3750	From 1/29 To 2/26	7.20"		
Schneider Meadows (Baker County)	5400	From 1/27 To 2/25	5.52"		
Seven Mile (Klamath County)	5725	From 1/30 To 2/27	6.36"		
Silvies (Harney County)	6900	From 7/13 To 3/3	27.60"		
Starr Ridge (Grant County)	5156	From 1/31 To 2/28	3.36"		
Strawberry (Lake County)	5760	From 7/13 To 2/28	20.52"		
Summit Lake (Klamath County)	5600	From 1/30 To 2/27	6.24"		
Taylor Butte (Klamath County)	5040	From 1/29 To 2/26	2.88"		
Taylor Green (Baker County)	5740	From 1/30 To 2/26	5.04"		
Three Creek Meadows (Deschutes County)	5650	From 1/28 To 2/26	4.68"		
Tipton (Baker County)	5100	From 1/30 To 2/26	3.00"		
Wolf Creek (Union County)	5700	From 1/30 To 2/26	2.40"		
Silver Creek (Lake County)	5720	From 1/31 To 2/29	1.08"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon State University
Oregon Department Of Water Resources
Soil and Water Conservation Districts of Oregon

COUNTY

Douglas County Water Resources Survey

FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Commerce
NOAA, National Weather Service
Department of the Interior
Bonneville Power Administration
Bureau of Land Management
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Department of National Defense
Corps of Army Engineers

PUBLIC UTILITIES

Pacific Power and Light Company
Portland General Electric Company
California-Pacific National

MUNICIPALITIES

City of Baker
City of La Grande
City of Portland
City of The Dalles
City of Walla Walla

IRRIGATION DISTRICTS

Arnold Irrigation District
Associated Ditch Companies
Burnt River Irrigation District
Central Oregon Irrigation District
East Fork Irrigation District
Grants Pass Irrigation District
Hood River Irrigation District
Jordan Valley Irrigation District
Juniper Flat Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Middle Fork Irrigation District
North Board of Control - Owyhee Project
North Unit Irrigation District
Ochoco Irrigation District
Rogue River Valley Irrigation District
South Board of Control - Owyhee Project
Squaw Creek Irrigation District
Talent Irrigation District
Tumalo Project
Vale - Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

The Crag Rats, Hood River, Oregon

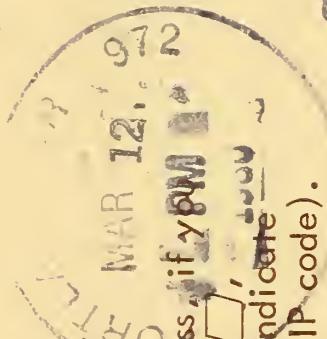


POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
APR 1972

1st CLASS MAIL

Return this entire sheet to above address if you
do NOT wish to receive this material
or if change of address is needed. (Indicate
changes in address below, including ZIP code).

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
1220 S.W. THIRD AVE.
PORTLAND, OREGON 97204
OFFICIAL BUSINESS
FEE PAYABLE FOR PRIVATE USE, \$300



U.S. GOVERNMENT
LIBRARY
1220 S.W. THIRD AVE.
PORTLAND, OREGON
454-14800
PROFESSIONAL SERIAL RECORDS
CURRENT

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Furnishes the basic data
necessary for forecasting
water supply for irrigation,
domestic and municipal water
supply, hydro-electric power
generation, navigation,
mining and industry

*"The Conservation of Water begins
with the Snow Survey"*

USDA NATIONAL AGRICULTURAL LIBRARY
CURRENT SERIAL RECORD
BELTSVILLE, MARYLAND 20705